THE MALE GENITAL TUBE OF THE AMPHIZOIDÆ[1]

By J. W. Wilson

When Sharp and Muir (12) prepared their work on "The Anatomy of The Male Genital Tube in the Coleoptera" they were unable to procure specimens of the family Amphizoidæ. Since this family is one of the intermediate groups between the Carabidæ and the Hydrophilidæ, figures of the ædœagus will be

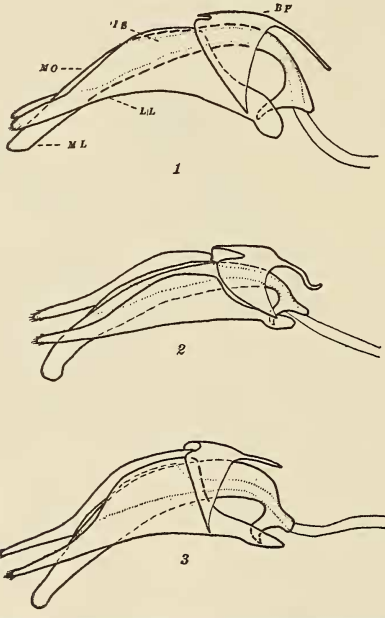

Fig. 1—Aedœagus of *Amphizoa insolens* Lec. from a lateral view; 2, ædœagus of *Amphizoa lecontei* Matth. same view; 3, ædœagus of *Amphizoa striata* Van Dyke.

of interest. The material was collected by Mr. P. J. Darlington during the summer of 1927. It includes the three species known from the Western United States, *Amphizoa insolens* Lec., *A. lecontei* Matth., and *A. striata* Van Dyke.

The ædœagus of Amphizoa is closely related to that of Pelobiidæ and Halipidæ. The median lobe (ML) is a simple

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cylindrical tube with a large median orifice(MO) extending the greater part of the length of the ventral side, internal sack (IS) simple and undifferentiated. The lateral lobes (LL) are large, produced, and coming together to form an articulation with the median lobe on the dorsal side. When retracted into the abdomen the ædœagus lies on its left side. The basal plate (BP) is small, attached to the lateral lobes by a short membrane, and rides over the lateral lobes. The structure of the ædœagi of the three species varies only in details of size and shape of the median lobe, the lateral lobes, and the basal plate.

The ædœagus of the Caraboidea Series is of two types, the less specialized being characterized by an undifferentiated internal sac. The Pelobiidæ, Halipidæ, Dytiscidæ, and Amphizoidæ possess such a simple sac. From a comparison of the figures by Sharp and Muir the Amphizoid ædœagus seems to be more closely related to the Pelobiidæ in the structure of the basal plate, and the size and shape of the lateral and median lobes.

The general shape of the Amphizoid ædœagus resembles that of *Dactylosternum subdepressum* Cast. which belongs to the Byrrhoid series of Sharp and Muir. In *Dactylosternum* the lateral lobes meet on the ventral surface, while in *Amphizoa* they meet and articulate with the median lobe on the dorsal surface. The basal piece in *Dactylosternum* is chitinized entirely, in *Amphizoa* the basal piece is not chitinized on the dorsal surface. This resemblance in shape then is only a superficial one.